Table 1. Subshells that contain electrons in the EADL and the elements in which the subshell first becomes occupied.

Z	Element	Subshell	Z	Element	Subshell
1	H	K (1s1/2)	58	C	N7 (4f7/2)
3	Li	L1 (2s1/2)	37	Rb	O1 (5s1/2)
5	B	L2 (2p1/2)	49	In	O2 (5p1/2)
5	B	L3 (2p3/2)	49	In	O3 (5p3/2)
11	Na	M1 (3s1/2)	57	La	O4 (5d3/2)
13	Al	M2 (3p1/2)	57	La	O5 (5d5/2)
13	Al	M3 (3p3/2)	91	Pa	O6 (5f5/2)
21	Sc	M4 (3d3/2)	91	Pa	O7 (5f7/2)
21	Sc	M5 (3d5/2)	55	Cs	P1 (6s1/2)
19	K	N1 (4s1/2)	81	Tl	P2 (6p1/2)
31	Ga	N2 (4p1/2)	81	Tl	P3 (6p3/2)
31	Ga	N3 (4p3/2)	89	Ac	P4 (6d3/2)
39	Y	N4 (4d3/2)	89	Ac	P5 (6d5/2)
39	Y	N5 (4d5/2)	87	Fr	Q1 (7s1/2)
58	Ce	N6 (4f5/2)			

Explanation of Graphs and Tables

The atomic data in this report is in the form of graphs and tables; included are fluorescence yields, subshell parameters, radiative transitions and nonradiative transitions. The atomic subshells are defined using x-ray notation. Data are presented in increasing Z (atomic number) order and for each Z in subshell order, K, L1, L2, etc.

This report is divided into four parts as follows:

Part 1 – Radiative yields. Included are the direct, enhanced, and total yields for each subshell, as defined earlier. Results are presented first graphically and then in tables. Nonradiative yields are equal to one minus the radiative yield and except for the K shell are almost all equal to unity. They are therefore not given here.

Part 2 – Subshell parameters. Units are electron volts and milli-angstroms. Included are the average number of electrons per subshell, the binding energy, kinetic energy, average radius, radiative and nonradiative widths, and the average total energy of all emitted photons and of all emitted electrons as well as local energy deposition.

Part 3 – Radiative transition probabilities and emitted photon energies. All 7667 radiative transitions are presented, first graphically and then in tabular form. Under the column heading Subshells, K L3 indicates a transition in that there is an "initial" vacancy in the K subshell and this vacancy is filled by an electron undergoing a transition from the L3 subshell, leaving a vacancy in the L3 subshell.

Part 4 – Nonradiative transition probabilities and emitted electron energies. All 90,513 nonradiative transitions are shown graphically. They have, however, been summed over all emitted electrons [index k in Eq. (5)] due to the extensive amount of data. For the tabular results, only those transitions that are at least 0.1% of the total nonradiative transition probability for the given subshell and element are listed. This still yields 38,919 transitions. Under the column heading Subshells, K L1 L2 indicates a transition in that there is an "initial" vacancy in the K subshell and this vacancy is filled by an electron undergoing a transition from the L1 subshell, emitting an electron from the L2 subshell, leaving vacancies in the L1 and L2 subshells.

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